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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,422	05/25/2001	Masakazu Hirano	0941.65569	5981

7590

08/07/2003

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EXAMINER

TZENG, FRED

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 08/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/866,422

Applicant(s)

HIRANO ET AL.

Examiner

Fred Tzeng

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8 and 9 is/are rejected.
- 7) ☒ Claim(s) 7 and 10-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. Claims 1-14 are presented for examination.

### ***Drawings***

2. Figures 1A, 1B, 2 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The disclosure is objected to because of the following informalities: on page 3, line 7, "...voice coil motor 115..." should be "...voice coil motor 113...", on page 4, line 4, "...disk 11..." should be "...disk 111...".

Appropriate correction is required.

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

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Disk Unit with Loading and Unloading Carried Out Uniformly in  
Circumferential Direction of a Disk.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35  
U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-6, 8, 9 are rejected under 35 U.S.C. 102(a) as being clearly  
anticipated by the prior art as disclosed under the description of the Related Art  
(see page 2-4 of the present application specification).

Regarding claims 1, 5 and 9, the instant application prior art discloses a  
disk unit having a function of loading a head on a disk from a holding mechanism  
during a load operation and unloading the head from the disk during an unload  
operation, comprising: a controller which controls a movement of the head so  
that the loading operation and the unloading operation are carried out (see  
present application specification page 3 lines 6-13, i.e., the servo controller 126)  
in a specific region on the disk, the specific region extending for an angular range  
smaller than 360° (see instant application specification page 3 lines 24-28).

Regarding claim 2, the instant application prior art discloses that the  
specific region is provided at a plurality of locations on the disk (see the admitted  
prior art of the instant application specification, page 3, lines 24-28).

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Regarding claim 3, the instant application prior art discloses a motor which rotates the disk (see instant application specification page 2 line 15, i.e., the spindle motor 112), the controller controlling the movement of the head so that the load operation and the unload operation are carried out based on a rotary position of the motor (see instant application specification page 3 lines 6-28).

Regarding claim 4, the instant application prior art discloses that the specific region of the disk is prerecorded with a synchronizing signal (see instant application specification page 3 lines 24-28).

Regarding claim 6, the instant application prior art discloses that the controller controls the movement of the head so that the unload operation is carried out in the specific region based on servo information which is prerecorded on the disk (see instant application specification page 3 lines 6-13).

Regarding claim 8, the instant application prior art discloses that the disk is provided with a protection layer, and a thickness of the protection layer is larger in at least the specific region compared to other regions of the disk (see instant application specification page 3 lines 24-37).

***Allowable Subject Matter***

8. Claims 7, 10-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

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Claim 7 is allowable over the prior art of record because none of the prior art of record has suggested or disclosed a disk drive having a function of loading a head on a disk from a ramp mechanism during a load operation and unloading the head from the disk during an unloading operation comprises a controller can detect the rotary position of a spindle motor a plurality of times during one revolution of the motor and able to set the pre-defined specific region on the disk with respect to each detected rotary position of the motor.

Claims 10, 11 and 14 are allowable over the prior art of record because none of the prior art of record has suggested or disclosed a disk drive having a function of loading a head on a disk from a ramp mechanism during a load operation and unloading the head from the disk during an unloading operation comprises a controller can shift the head by a predetermined distance in the circumferential direction of the disk within the pre-defined specific region on the disk for each load and unload operation and also making the specific region being a recordable region.

Claim 12 is allowable over the prior art of record because none of the prior art of record has suggested or disclosed a disk drive having a function of loading a head on a disk from a ramp mechanism during a load operation and unloading the head from the disk during an unloading operation comprises a pre-defined specific region which is also recordable along with the rest of the disk regions.

Claim 13 is allowable over the prior art of record because none of the prior art of record has suggested or disclosed a disk drive having a function of loading a head on a disk from a ramp mechanism during a load operation and unloading

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the head from the disk during an unloading operation comprises a controller which can detect a rotary position of a motor by detecting a back-electromotive voltage generated by a rotation of the motor and controlling timings of the load operation and the unload operation based on the detected rotary position.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (formal communications, please mark

"EXPEDITED PROCEDURE")

Or:

(703) 308-6606 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II,

2021

Crystal Drive, Arlington. V.A., Sixth Floor (receptionist).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Tzeng whose telephone number is 703-

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305-4841. The examiner can normally be reached on weekdays from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-746-5710 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

F.T.

Fred F. Tzeng

July 27, 2003

*Andrew L. Sniezek*

ANDREW L. SNIEZEK  
PRIMARY EXAMINER